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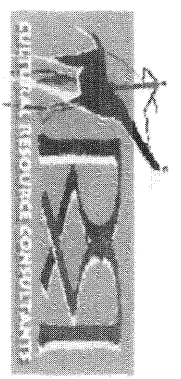
PHASE I
ARCHAEOLOGICAL IMPACT
ASSESSMENT

BAPHALABORWA WASTE DISPOSAL
LANDFILL SITE
LIMPOPO PROVINCE

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SYNOPSIS

Three archaeological sites were detected on the area demarcated for the proposed Waste Disposal Site. SITE 1 is of high significance and should be protected in terms of the National Heritage Resources Act. Although low in significance with regard to permanent protection status, mitigation for further assessments based on scientific considerations are recommended for SITES 2 & 3.

1. INTRODUCTION

The **Project Proposal** constitutes an activity that is listed in terms of the Environmental Conservation Act (Act No. 73 of 1989), for which an Environmental Impact Assessment is required to satisfy the requirements of the List of Activities and Regulation for EIA's - Government Gazette of 5 September 1997 - provided for in terms of sections 21, 22 and 26. In addition, the National Heritage Resources Act (Act No. 25 of 1999), protects all archaeological, palaeontological and historical sites and graves, and requires heritage resources impact assessments in terms of Section 38. To satisfy the requirements of the above legislation, a Phase 1 Heritage Impact Assessment (scoping & evaluation) of the proposed Waste Disposal Site was undertaken. In order to comply with legislation, the Municipality requires information on the heritage resources, and their significance that occur in the proposed development area. This will enable the developer to take proactive measures to limit the adverse effects that the development could have on such heritage resources.

The author was contracted by Rock Environmental Consulting to undertake a Phase 1 *Heritage Impact Assessment* of the surface area of Portion of the Farm Schiettoch 25LU (Refer to map, South Africa 1:50 000 2429 BD). The aim was to determine the presence of heritage resources such as archaeological and historical sites and features, graves and places of religious and cultural significance; to assess the impact of the proposed project on such heritage resources; and to submit appropriate recommendations with regard to the cultural resources management measures that may be required at affected sites / features. Due to the nature of the terrain, the focus has primarily been on archaeological remains.

The report thus provides an overview of the heritage resources that were detected on the proposed development area. The significance of the heritage resources was assessed in terms of criteria defined in the methodology section. It is indicated that these resources will be affected by the proposed development and the report recommends mitigation measures that should be implemented to minimise the adverse effect of the proposed development on these heritage resources. The mitigation measures also apply to heritage resources not detected during the survey, but which will in all probability be uncovered during the construction of infrastructure and roads.

2. METHODOLOGY

2.1 Sources of information

The source of information was predominantly the field reconnaissance.

A thorough survey of the demarcated area was undertaken on foot. Standard archaeological practices for observation were followed. As most archaeological material occur in single or multiple stratified layers beneath the soil surface, special attention was given to disturbances, both man-made such as roads and clearings, as well as those made by natural agents such as burrowing animals and erosion. Locations of archaeological material were recorded by means of a GPS (Garmin 12). Archaeological material and

the general conditions on the terrain were photographed with a KODAK DC120 Digital camera.

2.2 Limitations

Although the foot survey was very thorough, it is possible that certain archaeological sites and graves may have been missed. The discovery of previously undetected heritage remains must be reported and may require further mitigation measures.

2.3 Categories of significance

The significance of archaeological sites is ranked into the following categories.

No significance: sites that do not require mitigation.

Low significance: sites, which *may* require mitigation.

Medium significance: sites, which require mitigation.

High significance: sites, which must not be disturbed at all.

The significance of an archaeological site is based on the amount of deposit, the integrity of the context, the kind of deposit and the potential to help answer present research questions. Historical structures are defined by Section 34 of the National Heritage Resources Act, 1999, while other historical and cultural significant sites, places and features, are generally determined by community preferences.

A crucial aspect in determining the significance and protection status of a heritage resource is often whether or not the sustainable social and economic benefits of a proposed development outweigh the conservation issues at stake. There are many aspects that must be taken into consideration when determining significance, such as rarity, national significance, scientific importance, cultural and religious significance, and not least, community preferences. When, for whatever reason the protection of a heritage site is not deemed necessary or practical, its research potential must be assessed and mitigated in order to gain data / information which would otherwise be lost. Such sites must be adequately recorded and sampled before being destroyed. These are generally sites graded as of low or medium significance.

2.4 Terminology

Middle Stone Age: Various lithic industries in SA dating from ± 250 000 yr. - 30 000 yr. before present. In this area the Pietersburg Industry is dominant.

Late Stone Age: The period from ± 30 000-yr. to contact period with either Iron Age farmers or European colonists.

Early Iron Age: Most of the first millennium AD

Middle Iron Age: 10th to 13th centuries AD

Late Iron Age: 14th century to colonial period. *The entire Iron Age represents the spread of Bantu speaking peoples.*

Phase 1 assessments: Scoping surveys to establish the presence of and to evaluate heritage resources in a given area

Phase 2 assessments: In depth culture resources management studies which could include major archaeological excavations, detailed site surveys and mapping / plans of sites, including historical / architectural structures and features. Alternatively, the sampling of sites by collecting material, small test pit excavations or auger sampling.

Sensitive: Often refers to graves and burial sites although not necessarily a heritage place as well as ideologically significant places such as ritual / religious places. *Sensitive* may also refer to an entire landscape / area known for its significant heritage remains.

3. RELEVANT LEGISLATION

Two sets of legislation are relevant for this study with regard to protection of heritage resources and graves.

3.1 The National Heritage Resources Act (25 of 1999) (NHRA)

This Act established the South African Heritage Resources Agency (SAHRA) and makes provision for the establishment of Provincial Heritage Resources Authorities (PHRA). The Act makes provision for the undertaking of heritage resources impact assessments for various categories of development as determined by Section 38. It also provides for the grading of heritage resources and the implementation of a three tier level of responsibilities and functions for heritage resources to be undertaken by the State, Provincial authorities and Local authorities, depending on the grade of the Heritage resources. The Act defines cultural significance, archaeological and palaeontological sites and material (Section 35), historical sites and structures (Section 34), graves and burial sites (Section 36) which falls under its jurisdiction. Archaeological sites and material are generally those resources older than a hundred years, while structures and cultural landscapes older than 60 years, including gravestones, are also protected by Section 34. Procedures for managing graves and burial grounds are clearly set out in Section 36 of the NHRA. Graves older than a 100 years are legislated as archaeological sites and must be dealt with accordingly

Section 38 of the NHRA makes provision for *developers to apply for a permit before any heritage resource may be damaged or destroyed.*

3.2 The Human Tissues Act (65 of 1983)

This Act protects graves younger than 60 years. These fall under the jurisdiction of the National Department of Health and the Provincial Health Departments. Approval for the exhumation and re-burial must be obtained from the relevant Provincial MEC as well as the relevant Local Authorities.

Graves 60 years or older fall under the jurisdiction of the National Heritage Resources Act as well as the Human Tissues Act, 1983.

4. LOCATION AND DESCRIPTION

Refer to map, South Africa (1:50 000 2331 CD.)

The area for the proposed waste disposal site is located west of Phalaborwa, south of the R71 to Gravelotte and its junction with the R40 to Mica. The northern section is dominated by a high rising hill and the eastern border is a southwards flowing tributary of the Selati River. The dominant veld type is predominantly Mopani Veld.



Figure 1. General view of the hill

5. ARCHAEOLOGICAL AND HISTORICAL FINDS

5.1 ARCHAEOLOGICAL REMAINS

SITE 1 General Co-ordinates: $S23^{\circ} 56' 03.6''$ $E31^{\circ} 05' 02''$

This is an Iron Age site located at the base of the hill consisting of huge middens, especially on the western side, and terraces against the slopes on the northern, western and southern sides. A portion of the western edge of the site had been damaged by the construction of the adjacent tar road.

The middens are rich in pottery fragments, bone and metal slag. An ostrich eggshell bead was also found on one of the middens. An area of concentrated metal slag and tuyère pieces was found on the western edge indicating a smithing site, where some damage had been done by borrowing, probably during road construction.

The site is a typical example of a pre-colonial *BarPhalaborwa* settlement as is reflected by the terracing, pottery style and metal working activities. Some of the pottery fragments

found on the western side may, however, be of the earlier 10th – 12th century *Kgopole* cultural tradition.

It must be assumed that this particular hill with its accessible top could have had religious significance for rainmaking rituals as well.

Significance: High – the protection of this archaeological site is recommended



Figure 2. General view of site 1



Figure 3. View of terraced slope



Figure 4. Tuyère piece



Figure 5. Metal slag

SITE 2 Co-ordinates: *S23° 56' 23.5" E31° 05' 12"*

This is the location of a small stony outcrop with terracing and intact midden deposits. A fair concentration of metal slag was found on the southeastern side where the vehicle track cuts through the deposit. The grass coverage here is thick and the site is generally undisturbed with the result that only a few non-diagnostic pottery fragments were detected. The cultural tradition could thus not be identified.

Significance: Medium – mitigation for a phase 2 assessment is recommended



Figure 6. View of site 2



Figure 7. Terracing at site 2

SITE 3 Co-ordinates: *S23° 56' 30.4" E31° 05' 12.4"*

Pottery fragments and metal slag was found here adjacent to a small rocky outcrop. The pottery was also non-diagnostic and not identifiable. The area seems undisturbed.

Significance: Medium – mitigation for a phase 2 assessment is recommended

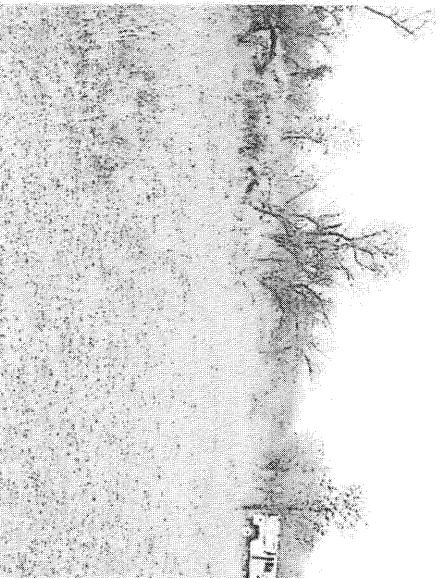


Figure 8. General view of site 3

5.2 HISTORICAL REMAINS

SITE 4 Co-ordinates: *S23° 56' 29" E31° 05' 00.6*

This is the location of the foundation remains of an old farmstead with outbuildings and livestock pens. The walls had been demolished and the rubble removed with the result that only the floors and foundations are intact. From the relatively modern building material and loose fixtures lying around it is deducted that these structures are not older than 60 year, and therefore not protected by section 34 of the NHRA. Further away at the river some old implement and livestock drinking troughs were found.

Significance: None

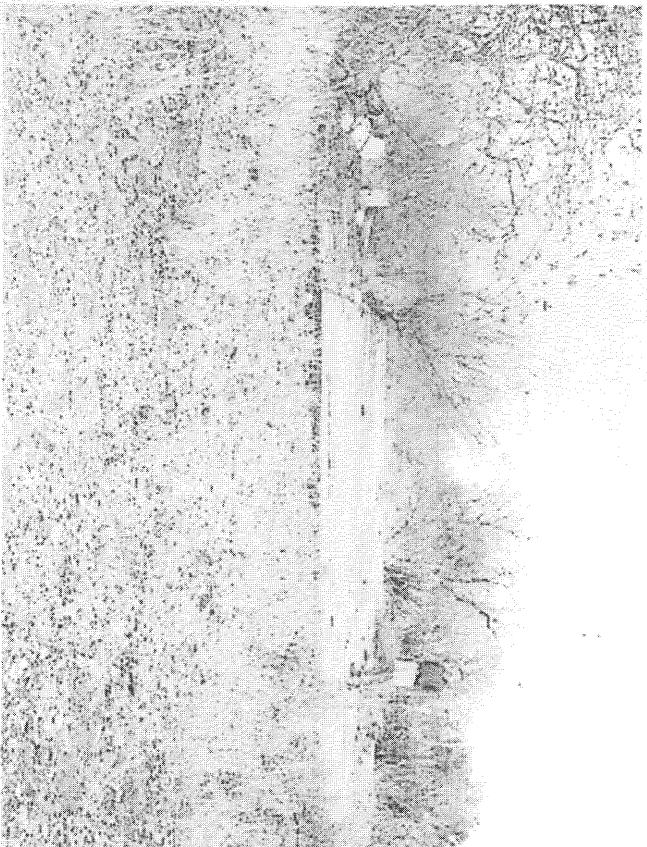


Figure 9. Historical remains

6. EVALUATION

SITE 1 is regarded as a significant heritage resource and must not be disturbed by any development. The Local Authority should protect the area.

SITES 2 & 3 are of medium significance because of their unidentified nature and the integrity of the deposits which has significant scientific value from which sufficient data can be derived for the understanding of the cultural sequence and the distribution pattern of the pre-colonial population of the area. Further assessments of these sites are required.

SITE 4 is not regarded as significant and no further assessment is required.

The proposed development will have an adverse impact on the recorded archaeological sites. In our view however, the urgent need for such facilities and the socio-economic benefits of the proposed development outweighs the conservation value of the archaeological remains at Sites 2 & 3.

7. RECOMMENDATION

In view of the above it is recommended:

1. **SITE 1**

That protection measures be implemented by the Local Authority to ensure that no future development takes place at this site. This site should be registered with the Provincial Heritage Resources Authority.

2. SITES 2 & 3

Due to the scientific value of these Iron Age sites, it is recommended that phase 2 archaeological assessments be mitigated for them to obtain a sufficient sample for dating and to understanding of the cultural sequence and the distribution pattern of the pre-colonial population of the area.

Notwithstanding the above note must however be taken of Sections 35 & 36 of the National Heritage Resources Act, of which an extract is given below.

Extracts from:
The National Heritage Resources Act (Act No. 25 of 1999).

Archaeology, palaeontology and meteorites

Subsection 35. (3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority or museum, which must immediately notify such heritage resources authority.

Subsection 35. (4) No person may, without a permit issued by the responsible heritage resources authority-

(a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite.

Burial grounds and graves

Subsection 36. (6) Subject to the provision of any law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority-

- (a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and
- (b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the content of such grave or, in the absence of such person or community, make any such arrangement as it deems fit.

BIBLIOGRAPHY

- Deacon, J. 1996. *Archaeology for Planners, Developers and Local Authorities*. National Monuments Council. Publication no. P021E.
- Deacon, J. 1997. *Report: Workshop on Standards for the Assessment of Significance and Research Priorities for Contract Archaeology*. In: Newsletter No 49, Sept 1998. Southern African Association of Archaeologists.
- Evers, T.M. 1988. *The recognition of Groups in the Iron Age of Southern Africa*. PhD thesis. Johannesburg: University of the Witwatersrand.
- Huffman, T.N. 1980. *Ceramics, classification and Iron Age entities*. African Studies 39:123-174
- Meyer, A. 1994. *Navorsingsmetodiek: Inligtingsformate vir Argeologiese Veldwerk*. Dept Antropologie en Argeologie, U.P
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An aerial view of the demarcated terrain.

